

Math 10 - "Write the Equation of a Line"

1. Write the equation of the line in slope-intercept form **or** in slope-point form for each of the following:
SHOW ALL WORK!

a) slope = -3 y - intercept = 2

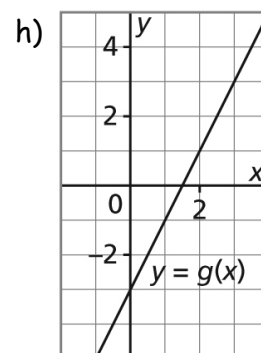
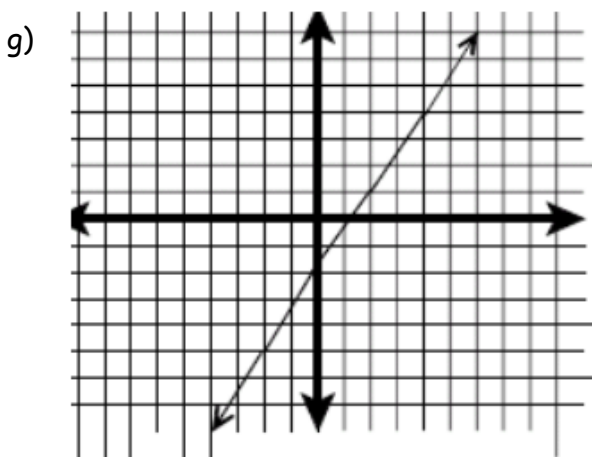
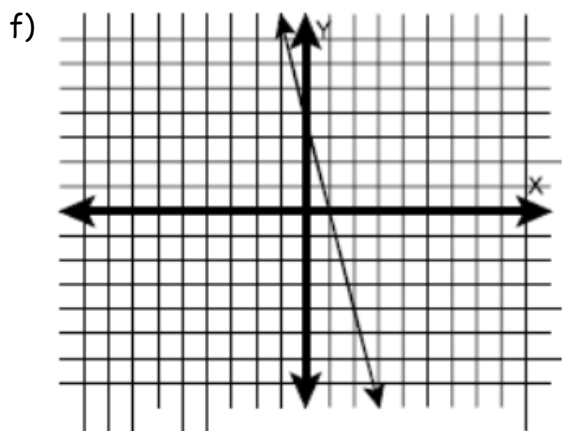
b) $m = 1/3$ $b = -4.2$

c) (2, 3) (-1, 2)

d) (-4, -5) (0, 6)

e) (8, 1)

(-2, 5)



2. Graph each of the following equations on grid paper.

a) $y = x + 2$

b) $y = 3x - 3$

c) $y = \frac{3}{4}x + 2$

d) $y = -\frac{4}{5}x - 4$

3. To join the local gym, Karim pays a start-up fee of \$99, plus a monthly fee of \$29.

- Write an equation for the total cost, C dollars, for n months at the gym.
- Suppose Karim went to the gym for 23 months. What was the total cost?
- Suppose the total cost was \$505. For how many months did Karim use the gym?
- Could the total cost be exactly \$600? Justify your answer.

4. a) Describe the graph of the linear function with this equation: $y + 1 = -\frac{1}{2}(x - 2)$

- b) Graph the equation.

5. Write an equation for the line that passes through $S(2, -3)$ and is:

- parallel to the line $y = 3x + 5$
- perpendicular to the line $y = 3x + 5$